

CLAIMS

1. A method of storing information configured to be used for a plurality of communication protocols to access a monitored device among distinct devices communicatively coupled to a network, comprising:

retrieving, from a first memory, information for accessing the device using at least one communication protocol supported by the device;

storing, in a second memory, the information for accessing the device retrieved from the first memory;

selecting a communication protocol among the plurality of communication protocols; and

accessing the device using the selected communication protocol and the information retrieved from the first memory and stored in the second memory.

2. The method of claim 1, wherein the retrieving step comprises:

accessing a memory external to a monitoring computer to obtain the information for accessing the device.

3. The method of claim 1, wherein the selecting step comprises:

selecting a communication protocol among SNMP, HTTP, and FTP.

4. The method of claim 1, wherein the retrieving step comprises:

retrieving, from the first memory, at least one of a username and a password for accessing the device using FTP.

5. The method of claim 1, wherein the retrieving step comprises:

retrieving, from the first memory, at least one of a community name and a password for accessing the device using SNMP.

6. The method of claim 1, wherein the retrieving step comprises:

retrieving, from the first memory, an IP address of the device.

7. The method of claim 1, wherein the second memory comprises a vector of parameter name and parameter value pairs for each of the plurality of communication protocols.

8. The method of claim 1, wherein the storing step comprises:
storing the information for accessing the device in a device software object associated with the device.

9. The method of claim 8, wherein the device software object is stored in a random-access memory unit of a monitoring computer.

10. The method of claim 1, wherein the retrieving step comprises:
accessing the first memory using virtual functions associated with an abstract software class.

11. The method of claim 1, wherein the accessing step comprises:
transmitting to the device, information stored in the second memory necessary to access the device using the selected communication protocol.

12. The method of claim 11, wherein the accessing step comprises:
receiving, by the device, the transmitted information; and
processing, by the device, the received information.

13. A system for storing information configured to be used for a plurality of communication protocols to access a monitored device among distinct devices communicatively coupled to a network, comprising:
means for retrieving, from a first memory, information for accessing the device using at least one communication protocol supported by the device;
means for storing, in a second memory, the information for accessing the device retrieved from the first memory;

means for selecting a communication protocol among the plurality of communication protocols; and

means for accessing the device using the selected communication protocol and the information retrieved from the first memory and stored in the second memory.

14. The system of claim 13, wherein the means for retrieving comprises:
means for accessing a memory external to a monitoring computer to obtain the information for accessing the device.

15. The system of claim 13, wherein the means for selecting comprises:
means for selecting a communication protocol among SNMP, HTTP, and FTP.

16. The system of claim 13, wherein the means for retrieving comprises:
means for retrieving, from the first memory, at least one of a username and a password for accessing the device using FTP.

17. The system of claim 13, wherein the means for retrieving comprises:
means for retrieving, from the first memory, at least one of a community name and a password for accessing the device using SNMP.

18. The system of claim 13, wherein the means for retrieving comprises:
means for retrieving, from the first memory, an IP address of the device.

19. The system of claim 13, wherein the second memory comprises a vector of parameter name and parameter value pairs for each of the plurality of communication protocols.

20. The system of claim 13, wherein the means for storing comprises:
means for storing the information for accessing the device in a device software object associated with the device.

21. The system of claim 20, wherein the device software object is stored in a random-access memory unit of a monitoring computer.

22. The system of claim 13, wherein the means for retrieving comprises:
means for accessing the first memory using virtual functions associated with an abstract software class.

23. The system of claim 13, wherein the means for accessing comprises:
means for transmitting to the device, information stored in the second memory necessary to access the device using the selected communication protocol.

24. The system of claim 23, wherein the means for accessing comprises:
means for receiving, by the device, the transmitted information; and
means for processing, by the device, the received information.

25. A computer program product having a computer usable medium for storing information configured to be used for a plurality of communication protocols to access a monitored device among distinct devices communicatively coupled to a network, comprising:
instructions for retrieving, from a first memory, information for accessing the device using at least one communication protocol supported by the device;
instructions for storing, in a second memory, the information for accessing the device retrieved from the first memory;
instructions for selecting a communication protocol among the plurality of communication protocols; and
instructions for accessing the device using the selected communication protocol and the information retrieved from the first memory and stored in the second memory.

26. The computer program product of claim 25, wherein the instructions for retrieving comprise:
instructions for accessing a memory external to a monitoring computer to obtain the information for accessing the device.

27. The computer program product of claim 25, wherein the instructions for selecting comprise:

instructions for selecting a communication protocol among SNMP, HTTP, and FTP.

28. The computer program product of claim 25, wherein the instructions for retrieving comprise:

instructions for retrieving, from the first memory, at least one of a username and a password for accessing the device using FTP.

29. The computer program product of claim 25, wherein the instructions for retrieving comprise:

instructions for retrieving, from the first memory, at least one of a community name and a password for accessing the device using SNMP.

30. The computer program product of claim 25, wherein the instructions for retrieving comprise:

instructions for retrieving, from the first memory, an IP address of the device.

31. The computer program product of claim 25, wherein the second memory comprises a vector of parameter name and parameter value pairs for each of the plurality of communication protocols.

32. The computer program product of claim 25, wherein the instructions for storing comprise:

instructions for storing the information for accessing the device in a device software object associated with the device.

33. The computer program product of claim 32, wherein the device software object is stored in a random-access memory unit of a monitoring computer.

34. The computer program product of claim 25, wherein the instructions for retrieving comprise:

instructions for accessing the first memory using virtual functions associated with an abstract software class.

35. The computer program product of claim 25, wherein the instructions for accessing comprise:

instructions for transmitting to the device, information stored in the second memory necessary to access the device using the selected communication protocol.

36. The computer program product of claim 35, wherein the instructions for accessing comprise:

instructions for receiving, by the device, the transmitted information; and
instructions for processing, by the device, the received information.